

# MAKOBOND ADHESIVE PASTE 120

## PRODUCT DESCRIPTION

Mako AP-120 is a toughened, two-part epoxy structural adhesive designed for high impact and fatigue resistance in demanding bonding applications. It bonds well with metals, ceramics, glass, composites, and plastics, offering a reliable alternative to mechanical fasteners like screws, rivets, and spot welds. Suitable for various industries including sporting goods, metalworking, general industrial, and transportation, it can be used for joining, gluing, potting, panel bonding, and structural bonding. With a mix ratio of 2:1, AP-120 provides a work-life of 20 minutes, allowing for adjustments before curing. It achieves handling strength in about two hours and full cure in 24 hours at 72 °F (22 °C). The adhesive maintains bond strength and can withstand paint bake operations up to 400 °F for 60 minutes.

## PRODUCT HIGHLIGHTS

- High shear and peel strength
- Easy mixing
- Impact and Fatigue Resistant
- High Performance

## PRODUCT CHARACTERISTICS

	AP 120A	AP 120B
Viscosity @ 25°C	20-50K cps	8-14K cps.
Specific Gravity	1.12	1.05
Color	Black	Amber

## HANDLING PROPERTIES

Adhesive Paste 120	
Mix Ratio By Weight, Resin, Hardener	100:50
Mix Ratio By Volume, Resin, Hardener	2:1
Mixed Viscosity @ 25°C	Thin Paste
Pot Life @ 25°C	20-30 minutes

## PHYSICAL PROPERTIES

	Results	ASTM Method
Cured Hardness (Shore D)	77-80D	D2240
Lap Shear (psi) Aluminum to Aluminum	4,550 psi	D1002

## HANDLING AND CURING

Measure out proper weights of AP 120 and mix until uniform with no streaks are present throughout. Scrape container for any unmixed material. Apply AP 120 to prepared surface and let set at 25°C (77°F) for at least 4 hours. Once the material has set, a quick post cure of a couple hours at 65.6°C (150°F) will provide full properties.

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### PACKAGING WEIGHTS

	Quart Kit	Gallon Kit	Pail Kit	Drum Kit
AP-120A	2 lbs	8 lbs	40 lbs	450 lbs
AP-120B	1 lbs	4 lbs	20 lbs	225 lbs
AP-120 Kit	3 lbs	12 lbs	60 lbs	675 lbs

\*Cartridge Packaging is available upon request. Please contact Mako for details.

### STORAGE AND SAFETY

Makobond AP 120 has a shelf life of 12 months from date of shipment when unopened and stored at ambient temperatures, (18-27°C). Nitrogen purging opened containers is recommended before re-sealing. Users need to exercise proper care while working with material; gloves, eyewear, and proper ventilation are recommended. Warning: All thermosetting matrix systems undergo exothermic reaction during vulcanization and/or curing, generating heat. If not properly managed, exothermic reactions may release possibly flammable or toxic gases into the surrounding. Users should exercise extreme caution when blending large volumes of ingredients (ie greater than 1 lb), and/or curing thick sections of components (typically greater than 0.200 inches). Users should monitor heat profiles of any curing or blended materials carefully and attentively during cure. Please contact a Mako team member with any concerns prior to use and/or to coordinate the proper management of safety and temperature monitoring process to avoid exothermic phenomena.